REMARKS/ARGUMENTS

The amendments set forth above and the following remarks are responsive to the points raised by the Office Action dated April 30, 2008. In view of the amendments set forth above and the following remarks, reconsideration is respectfully requested.

The Pending Claims

Claims 1-17 and 19-29 are pending. Claims 1 and 28 are amended to describe the invention more clearly. No new matter is added, and support for the amended claim language may be found within the original specification, claims, and drawings. Claims 1 and 28 are supported at, for example, page 3, lines 1-5 of the specification.

Claim Rejections

Claims 1, 2, 5-13, 15-17 and 19-29 were rejected under 35 U.S.C. § 103 as unpatentable over FR 2803245 to Kuczynski et al. (hereinafter, "Kuczynski") in view of U.S. Patent No. 6,541,183 to Teng (hereinafter, "Teng") and what the Office Action characterizes as Applicant's Admitted Prior Art (AAPA). The remarks herein will refer to the English language cognate of Kuczynski, US. 2003/0054153.

Claims 3 and 4 were rejected under § 103 as unpatentable over Kuczynski, Teng, and what the Office Action characterizes as Applicant's Admitted Prior Art (AAPA), as applied to claim 1, and further in view of U.S. Patent No. 3,264,103 to Cohen et al. (hereinafter, "Cohen").

Claim 14 is rejected under § 103 as unpatentable over Kuczynski, Teng, and what the Office Action characterizes as Applicant's Admitted Prior Art (AAPA), as applied to claim 1, and further in view of U.S. Patent No. 5,795,647 to Robinson et al. (hereinafter, "Robinson").

Each of these rejections is respectfully and separately traversed.

The obviousness rejection of amended independent claims 1 and 28 cannot be maintained because the cited combination of references fails to teach each and every element of amended independent claims 1 and 28.

Amended independent claims 1 and 28, the only pending independent claims, recite that the solid layer of light sensitive material includes "at least one acylphosphine oxide photoinitiator sensitive to said laser light." None of the cited references teach or suggest "at least one acylphosphine oxide photoinitiator sensitive to said laser light," as claimed in amended independent claims 1 and 28. Because the cited combination of references fails to teach or suggest each and every element of the claims, the obviousness rejection cannot be maintained.

In support of the patentability of the pending claims, the Applicants submit herewith a Declaration under 37 C.F.R. § 1.132 signed by Dr. Christian Decker. Dr. Decker has 25 years of experience in the field of polymerization, curing, and crosslinking reactions induced by UV-visible radiation and lasers, and his laboratory has published over 200 scientific papers and review articles in this field (Decker Declaration, ¶ 1).

As Dr. Decker explains, the acylphosphine oxide photointiator provides the distinct advantage of bleaching the layer of light sensitive material and rendering it transparent to enable cross-linking throughout the thickness of the layer of light sensitive material (Decker Declaration, ¶ 4). As further explained by Dr. Decker, the photobleaching effect provided by the acylphosphine oxide photointiator allows the radiation to reach the deep-lying areas of samples having a thickness that is considerably large, i.e., a "thickness between 0.5 to 2 mm" and ensures crosslinking throughout the thickness of the layer (Decker Declaration, ¶ 4).

None of the cited references teach or suggest using a photoinitiator that "undergoes a photoreaction under effect of the laser light to bleach the layer of light sensitive material, wherein the bleaching renders the crosslinked zones transparent to the laser light in order to enable cross-linking throughout the thickness of the layer of light sensitive material," as claimed in independent claims 1 and 28. The Office Action correctly acknowledges that Kuczynski fails to teach this element of the claims.

Teng fails to cure the deficiencies of Kuczynski. As attested to by Dr. Decker, Teng does not disclose an acylphosphine oxide photoinitiator, nor does Teng disclose any photoinitiator that is capable of bleaching the layer of light-sensitive material (Decker Declaration, ¶ 5). Accordingly, as Dr. Decker explains, the method taught by Teng cannot

"bleach the layer of light sensitive material, wherein the bleaching renders the crosslinked zones transparent to said laser light" (Decker Declaration, ¶ 5).

Moreover, as explained by Dr. Decker, the semi-solid radiation-sensitive layer of Teng is very thin, i.e., at least one micrometer (col. 5, line 14) (Decker Declaration, ¶ 6). This thickness is three orders of magnitude smaller than the claimed light-sensitive material, which has a "thickness between 0.5 to 2 mm." As Dr. Decker further explains, reactions induced by light are highly dependent on sample thickness due to the limited penetration of UV light and visible radiation in absorbing media (Decker Declaration, ¶ 6). Thus, one of ordinary skill in the art would not have a reasonable expectation of success to apply Teng's method, which is adapted for crosslinking a very thin layer, to photobleach and crosslink a thick light sensitive layer, i.e., a layer having a "thickness between 0.5 to 2 mm." Thus, Teng fails to cure the deficiencies of Kuczynski and the obviousness rejection cannot be maintained.

The Office Action alleges that AAPA discloses a number of photoinitiators sensitive to the wavelength of light used that were commercially available at the time of the invention at page 3, first paragraph of the specification, and that all of the listed photoinitiators inherently undergo the claimed photoreaction with the claimed bleaching effect.

In the Amendment filed April 16, 2008, the specification and claims were amended to explain that the photoinitiators listed at page 3, first paragraph of the specification undergo a photoreaction under the effect of the laser light to bleach the light sensitive material to render the crosslinked zones transparent to the laser light and to enable cross-linking throughout the thickness of the layer. In the remarks, the Applicants explained that this is an inherent property of the commercially available photoinitiators on page 3 of the specification. The Office Action erroneously asserts that this remark amounts to an admission that the newly added language is prior art.

The Office Action's position is completely unfounded. A statement that the newly added language recites an inherent property of the photoinitiators listed in the specification is not, in any way, an admission that these photoinitiators, with their claimed properties, is *prior art*. In particular, the statement is not, in any way, an admission that using these

photoinitiators in the claimed method for producing a flexographic printing blanket is prior art. The language appears in the detailed description of the *invention*, not in any description of the prior art. Moreover, the Office Action's reliance on this newly added paragraph as grounds for an obviousness rejection is completely improper; the Patent Office is not permitted to use the detailed description of the Applicant's own invention to reject the claims as unpatentable. Accordingly, the Applicants' remarks of April 16, 2008 cannot be considered AAPA, and cannot be relied upon to reject the claims as unpatentable. Therefore, the obviousness rejection based on the alleged AAPA cannot be maintained.

Moreover, the Applicants assert that it is improper to compare the lithographic layer of Teng with the compressible layer of Kuczynski. The objective of Kuczynski is to provide a printing plate whose compressibility is not uniform over the entire printing plate ([0018]). Thus, the compressible layer includes monomers that are not activated by the means which cause cross-linking of the copolymer material of the compressible layer ([0062]-[0064]). The monomers and the photopolymer (lithographic) layer in Kuczynski are activated by UV light simultaneously ([0070]).

In Kuczynski, at first, only the compressible layer is crosslinked by heat, isocyanates, electron bombardments or X rays (e.g., pars. [0095], [0190]). In a subsequent step, the printing plate is irradiated by different means, i.e., UV radiation, in order to initiate cross-linking and to harden the compressible layer (par. [00192]). The UV radiation step can take place during the development of the photopolymer layer of the printing plate (pars. [00194]). There is no teaching or suggestion in Kuczynski of using laser light, as claimed. In addition, the compressible layer has a thickness between 0.76 and 6.22 mm, preferably between 1.0 and 2.8 mm (pars. [0225]-[0226]).

In contrast, Teng teaches cross-linking a lithographic layer by irradiation with visible or ultraviolet laser light (col. 1, lines 8-11; col. 5, lines 38-67; col. 10, lines 43-50). The printing plate of Teng is an offset printing plate with a semisold layer of at least one micron (col. 5, line 14). The semi-solid layer of Teng is very different from the compressible layer of Kuczynski and is not comparable therewith. While Teng teaches using initiators, Teng does not teach the use of bleaching photoinitiators. Bleaching photoinitiators would be completely unnecessary in Teng because of the thinness of the layer to be crosslinked.

The UV light of Kuczynski would not be replaceable with the laser light of Teng, as suggested in the Office Action, because the UV light for the subsequent cross-linking step of the photopolymer layer of the printing plate of Kuczynski must simultaneously activate the monomers which are distributed in the compressible layer. Accordingly, replacing the UV light of Kuczynski with the laser light of Teng would fundamentally alter the principle of operation of the method of Kuczynski, in contravention of MPEP § 2143.01. Therefore, the obviousness rejection cannot be maintained.

There is no reason to include bleaching photoinitiators in the outer lithographic layer of Kuczynski. In fact, including such photoinitiators in the printing plate of Kuczynski would be incompatible with the teaching of Kuczynski because Kuczynski teaches that this compressible layer is cross-linked by activating means that are fundamentally different from laser light and may be for, example, X rays. The mere fact that such photoinitiators are commercially available is not a sufficient reason for one of ordinary skill in the art to use them in Kuczynski. Thus, the obviousness rejection is improperly based on hindsight and cannot be maintained.

Furthermore, the claimed method also provides a photo-crosslinked polymer with a strong elastomeric character. As Dr. Decker attests, such a strong elastomeric character can only be achieved using high molecular weight rubbers bearing reactive double bonds as a starting material (Decker Declaration, ¶ 7). Teng, in contrast, cannot provide a photo-crosslinked polymer with a strong elastomeric character because Teng does not use high molecular weight rubbers bearing reactive double bonds as a starting material, as Dr. Decker explains (Decker Declaration, ¶ 7). Accordingly, Teng cannot render the present claims obvious.

Cohen and Robinson fail to cure the deficiencies of Kuczynski, Teng, and the alleged AAPA. Cohen and Robinson also fail to teach or suggest a method of making a flexographic printing plate, wherein the light sensitive layer has a thickness between 0.5 and 2 mm and includes an acylphosphine oxide photoinitiator that undergoes a photoreaction under effect of a laser light having a wavelength between 390 to 410 nm to bleach the layer of light sensitive material, wherein the bleaching renders the crosslinked zones transparent to said laser light in

order to enable cross-linking throughout the thickness of the layer of light sensitive material. Thus, Cohen and Robinson also fail to render the present claims obvious.

Since the independent claims are allowable for the reasons set forth above, the dependent claims are also allowable because they depend from allowable independent claims.

Conclusion

Applicants respectfully submit that the patent application is in condition for allowance. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

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Amendment or ROA - Regular (SML/mlg)